

REMARKS

Claims 18-23 have been cancelled in response to the election / restriction requirement as they relate to a non-elected invention. Applicants reserve the right to file a divisional application on such claims. No amendment of inventorship is required by this cancellation.

Claims 1, 2, 7, 10, 11, 13, 16 and 17 have been rejected under 35 USC 102(b) as being anticipated by Clark et. al. (US 5,223,133). Applicants respectfully disagree.

Clark relates to a transfer device for transferring a plurality of filters that contain a retentate on their upper surfaces from a multiple well filtration device. The transfer device may be formed of a plate having through holes or depressions (with a closed bottom). Each through hole or depression contains an electrically conductive adhesive layer within it. In the through hole version an impermeable cover sheet such as a metal foil is placed on the outside surface of the transfer plate.

The transfer device of Clark is not a filter plate as claimed in the present claims. It does not contain a filter on its bottom surface nor is it capable of performing a filtration step. In fact, Clark specifically states that this device is used after filtration has occurred in a separate multiple well device. See Column 2, lines 44-46 "The transfer apparatus is used subsequent to using a filtration apparatus to deposit a retentate on the multiple filters."

Moreover, the filter from the other plate that is adhered to the adhesive of the transfer device of Clark is contained within the well or depression of Clark and it is not adhered by its first surface to the bottom surface of the transfer device as is required by the present claims.

Additionally, the disclosure of Clark relative to a filter plate discloses that one can use a conventional means such as heat bonding of the filter to the multiwell filter plate as the means for bonding the filter to the plate. The filter around the wells is then cut and removed as

by laser. The bond must also be capable of being releasable by the adhesive of the transfer device of Clark so that the filter of the filter plate can be removed and stored within the hole or depression of Clark without the upper surface of the filter having been touched. See Column 4, lines 18-25.

Clark neither teaches nor suggests forming a multiple well filtration plate in which the top surface of the filter is adhered to the bottom surface of the plate having through holes. It instead relates to a totally different invention, namely a transfer device for removing the filters of a filtration in a manner that prevents contamination or loss of the retentate on the top surface of the filter.

Claims 1, 4, 5, 6, 8 and 9 have been rejected under 35 USC 102(b) as being anticipated by Matkovich et. al. (US 4,797,259). Applicants respectfully disagree.

Matkovich does not teach using an adhesive to bond a filter to the bottom of a multiple well plate as alleged by the Office Action. Rather it clearly teaches using a heat bonding to bond the various layers of filters together and to the wells of the plate. See Column 11, lines 23-24, "As a result of the heat process used,....", Column 11, lines 39-44; " Such a seal is typically accomplished by means of a heat, and preferably combined with pressure, treatment. Heat-sealing methods using radiant heat or ultrasonic sealing techniques with apparatus, such as heater blocks or welding horns, respectively, may be employed."; Column 12, lines 15-18 , "Thus, each of the separate layers may be overlaid and the separate layers sealed to one another and to the bottom of each well in a single heat-sealing procedure."; Column 12, line 24, "Heat is then applied...."; Column 12, line 28, "Heat is applied...."; and Column 12, line 42, "...when heat is applied....". Even the passage cited for support of the use of an adhesive in the Office Action fails to cite the use of an adhesive. Rather it relates to the formation of the three layers of the composite filter to each other before it as a whole is bonded tot the wells of the device. Nowhere in that passage is adhesives mentioned. In fact the only method specifically mentioned in that cited passage is to melt extrude one layer onto another layer. Otherwise, the only method mentioned in the specification is heat bonding and one of ordinary skill in the art would not have found any reference to using adhesives instead of heat bonding from the cited reference.

As the reference fails to teach the use of an adhesive to form a filter on the bottom of a plate as is required by Claim 1 any additional features of claims dependent on Claim 1 would also not be anticipated by the reference.

Claims 3 and 9 have been rejected under 35 USC 103(a) as obvious over Clark in view of Fernwood. Applicants disagree.

Clark as described above relates not to a filtration plate but a transfer device to move a used filter from a filtration plate to a device for analysis without touching the top surface of the filter in that plate. The only method for sealing a filter to plate for use as a filter in Clark is heat sealing.

Fernwood relates to a filtration plate which uses a series of screws and threaded openings to compress a membrane between two plate portions.

There is no motivation in the two references to suggest their combination. They relate to different devices (a compression held filtration plate vs a transfer plate and the problem of directing the filtrate to a specific location without crosstalk (Fernwood) vs. recovering the filter with the filtrate intact (Clark)).

One of ordinary skill in the art would not have been motivated to consider their combination. To recover the filter with retentate on it from Fernwood, all one needs to do is unscrew the assembly and remove the filter. There is no advantage to using Clark with Fernwood as the membrane of Fernwood is not bonded by heat or other irremovable methods to the plate and therefore the transfer device of Clark is unnecessary. Moreover, Applicants do not see how one could use the transfer device of Clark in Fernwood. As such, there is no motivation to suggest the combination, absent the teachings of this invention, and even so, the combination the references suggest do not suggest the present invention. Withdrawal of the rejection based upon this combination is believed to be improper and should be withdrawn.

If for some reason, the rejection is believed to be based upon a proper combination of references, Applicants ask that the examiner specifically cite the portions of the texts that provide one with the motivation to consider their combination as they are unclear to Applicants.

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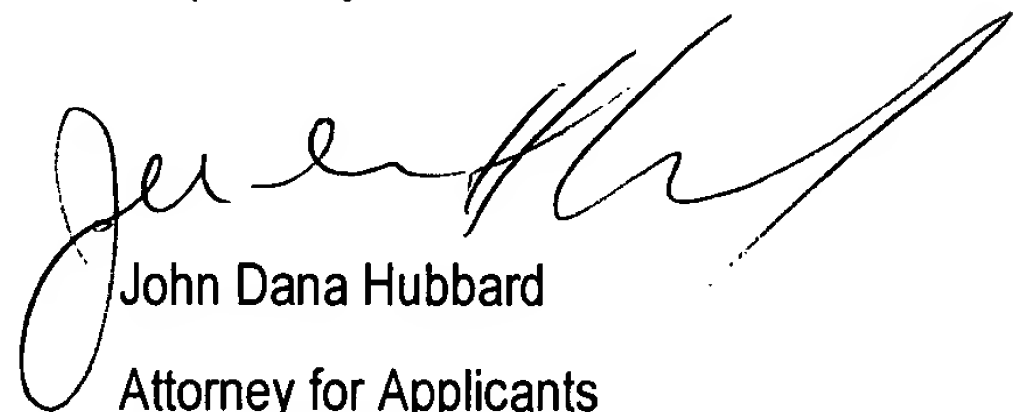
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Additionally, if the rejection is allowed to stand, the suggested combination would not have taught or suggested the present invention as neither reference teaches or suggests using an adhesive to bond the filter to the plate. Clark uses an adhesive to bond the filter to the adhesive and either a nonporous foil or a closed non-porous depression. Fernwood uses compression to releasably seal a filter between a gasket and a rigid plate. Neither one, alone or in combination, suggest the use of the adhesive as in claim 1 and therefore do not teach or suggest the use of further additional elements such as an injection molded plate in combination with the elements of claim 1.

Claims 12, 14 and 15 have been objected to as depending from a rejected base claim but would be allowable if rewritten in independent form including all limitations of the base claim and any intervening claim. Claims 12, 14 and 15 have been cancelled and rewritten as new independent claims 24, 25 and 26. Allowance of these new claims is respectfully requested.

Applicants believe this reply is complete and conforms to the requirements of the Office Action. Applicants' attorney requests that the Examiner call him if it is believed that this reply is not in complete compliance with any of the Office Action's requirements.

Respectfully Submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES

Claims 12,14 and 15 have been cancelled.

Claims 24-26 have been added.

24. (New) A multi well filter plate for filtering a liquid comprising,
- a plate having top and bottom surfaces,
 - a plurality of holes passing through said plate,
 - a filter having a first and second surface,
 - said first surface of said filter being sealed to said bottom surface of said plate,
 - said seal being an adhesive,
 - said seal being liquid tight so that when a sample is placed in said holes and a pressure differential is applied between said top and bottom surfaces the liquid passes through said filter and wherein the surface of the plate to which the filter is bonded has a series of troughs formed around the holes into which the adhesive is placed.
25. (New) A multi well filter plate for filtering a liquid comprising,
- a plate having top and bottom surfaces,
 - a plurality of holes passing through said plate,
 - a filter having a first and second surface,
 - said first surface of said filter being sealed to said bottom surface of said plate,
 - said seal being an adhesive,
 - said seal being liquid tight so that when a sample is placed in said holes and a pressure differential is applied between said top and bottom surfaces the liquid passes through said filter
 - and wherein the first surface of the filter has cuts through at least a portion of the depth of the first surface, the filter being attached by its first surface to the bottom surface of the

plate so as to form a seal between the plate bottom and the seal being the adhesive bonded to the cuts in the first surface of the filter.

26. (New) A multi well filter plate for filtering a liquid comprising,
a plate having top and bottom surfaces,
a plurality of holes passing through said plate,
a filter having a first and second surface,
said first surface of said filter being sealed to said bottom surface of said plate,
said seal being an adhesive,
said seal being liquid tight so that when a sample is placed in said holes and a pressure differential is applied between said top and bottom surfaces the liquid passes through said filter

and wherein the filter is an ultrafiltration filter, the first surface of the filter having a smaller pore size than the second surface, the first surface of the ultrafiltration filter having cuts through at least a portion of the depth of the first surface, the ultrafiltration filter being attached by its first surface to the bottom surface of the plate so as to form a seal between the plate bottom and the ultrafiltration filter and the seal being an adhesive bonded to the cuts in the first surface of the filter.